

MushRumors

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Mushroom Review: A Dilly of a Year by Linda Magee

The year of 2019 was a phenomenal year for the Northwest Mushroomers Association. First, we had record-breaking attendance at our annual show in October. Then at our season-ending Dilly Foray at Deception Pass State Park, nature gave us her take on a record-breaking show!

The weather was perfect for foraging—cloudy with a quick mist now and again, occasional sun, a beautiful view of Bowman Bay, and a magnificent display of fungi across the land.

Co-host Mark Johnson and I barely got the display/identification tables ready as attendees began pouring into the shelter around 9:15 a.m. with loads of specimens collected between the parking lot and the shelter! We chatted, drank hot beverages, signed in, and organized the potluck contributions as more and more attendees arrived.

Forty-five people signed in. We always miss a few people, or one person signs for the whole group, so I'm claiming we had at least 50 participants.

Speaking of attendees

We were thrilled that Margaret Dilly attended. The Dilly Foray is named in honor of Margaret and Claude Dilly who began the foray in the 1990s. This end-of-



Margaret Dilly, who started it all. Photo: Vince Biciunas

the-season foray is a testament to their decades of work to develop mushroom identification materials and to inspire others to discover the wonderful world of fungi. Mark Johnson introduced Margaret to the attendees and gave a brief summary of her long service to our club.

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You're invited to the 2020 Survivors Banquet!

The snows are gone (for now) and this "last of 2019" newsletter is finally out. Time to settle down for a good read . . . then get your mushroom caps on and save the date for our fabulous spring Survivors Banquet! Celebrate your mushroom community with good times, a lively raffle, and your best fungal potluck recipe.

When? Saturday, March 21, 2020 **What?** NMA's Survivors Banquet **Where?** Squalicum Yacht Club, Bellingham. Find details at northwestmushroomers.org/events-calendar or via an upcoming Google groups email.



Some quick notes on notable finds ...

Christine Roberts believes we can now claim the record for the largest *Russula fragilis* on the West Coast: 10 cm in diameter and 10 cm in height.

Christine took a *Cortinarius* collected at the foray home for further testing. She looked through Noah Siegel's *Mushrooms of the Redwood Coast*, and thought it look like *Cortinarius fuligineofulvis*. After further testing with iodine on the stipe and comparing the cap texture and color (light hygrophanous brown with purple hints), she was convinced. On [iNaturalist](#) she found only five observations for this species on the West Coast, so this may have been the first observation for Washington.

The feast and finale

As always, we had a grand array of delicious food and drink and a wood-burning stove to hover around. It was more like grazing than sitting, though. This group wanted to ask questions, compare finds, take photos, touch, smell, feel, and if acceptable, taste the specimens.

Our identifiers were the epitome of multitaskers. They moved from table to table, looking at books and specimens, identifying finds, answering questions, giving mini-lectures, and occasionally taking a sip of a drink or a mouthful of food. Thanks to everyone who worked to clean up the shelter in record time.



Tristan Woodsmith of Fungi Perfecti, our guest speaker at our November 14, 2019, meeting, came to the foray and brought his parents. Tristan helped many people identify their finds and excited the group by sharing a great photo of a huge matsutake he found at Bowman Bay the day before.

There were many familiar faces and a crowd of participants new to the club, all buzzing with excitement. And, of course, our identifiers—Fred Rhoades, Christine Roberts, and Harold Mead—arrived early, worked ceaselessly, and stayed until the last pieces of the identification papers were safely stored for transcription.

And what came back

At around 10 a.m., Fred Rhoades gave an overview of collection protocol and forage locations. Attendees split up into large and small groups or went out individually to begin the serious foraging. Many took to higher trails, some stayed around the campgrounds, and a group went by car to Hoypus Point.

According to the 2019 Dilly Species List, 144 species were identified at least to genus, beating last year's list of 101 species. (To view this foray list and many others, including those from Swede Heaven and Lummi Island, consult northwestmushroomers.org/species-lists.)



Ah, the gentle coastal woods where mushrooms fruit late into the fall season. Photo by Mark D. Johnson

The forays of the future

Peruse the species lists at the link mentioned above and familiarize yourself with the [iNaturalist app](#). These are great ways to hone your ID skills during the dark days of winter.

At this foray we once again faced the welcome logistical problem of too many mushrooms. We began with two ID tables, which quickly became overcrowded. So, we had to co-opt another table to spread the specimens. We hope to implement new foray protocols next season to bring some order to the

chaos, make the tasks of our ID'ers a little easier, and spend more time answering the questions of attendees.

And to that end, if you were one of the many eager foray participants, please consider channeling some of that enthusiasm into being a foray co-host or a foray ID assistant in 2020. We'll have a calendar out soon with the dates and some locations of forays and person(s) to contact to volunteer.

The NMA is only as strong as the efforts of our volunteers and only as rich as the gifts of Nature. See you at the next foray in mid-spring, on April 18, 2020!



Photos courtesy Lummi Island Heritage Trust

Foray on Lummi Island Heritage Trust lands

Waiting at the Gooseberry Point ferry terminal at 9:00 a.m., suddenly I saw Fred Rhoades striding towards my car to deliver the message that the ferry was down, due to problems with the island dock. Emails, phone messages, and texts swiftly passed each other on the grapevine as alternative plans were made, but fortunately the ferry resumed within a half hour. We met our hosts, the Lummi Island Heritage Trust, at their warm, comfortable building on the Otto Preserve (just one of their four holdings on the island) at 10:30. Golden-leaved bigleaf maples surrounded the meadow and building, and the sun beamed down on us as 52 people separated into groups to foray.

Before we dispersed, Fred reminded everyone to pick only one or two specimens of fungi, so we wouldn't have the piles of mushrooms as last year. Of the three foray sites, most people stayed at the Otto Preserve on the 3-plus miles of trails. Others drove the mile to Baker Preserve, a steep hike up Lummi Mountain. The third group piled into two cars and explored the Curry Preserve, three miles to the north, which is mainly meadow and altogether a different ecosystem than the other two.

When we returned at noon, Fred and Buck McAdoo found themselves with three tables of

mushrooms to identify and label, and they set right to it. Lobster mushrooms, *Hypomyces lactifluorum*, were marveled at, *Coprinus* species, Russulas, *Ramaria*, even a lavender *Laccaria amethysteo-occidentalis* were on display. When our Curry group found the orange blisters of "wolf's blood" slime mold on a roll of bitter cherry bark, Buck punctured one and out oozed the bright orange "blood." All of us found a great variety of mushrooms. We agreed we should have given ourselves another half hour of collecting. While perusing the mushrooms laid out for us to study, people helped themselves to the generous food everyone had brought. Linda Magee and her partner Tom had brought a little stove on which they prepared a few lobster mushroom samples to serve to those who wanted a taste.

As on previous years, the Lummi Island Heritage Trust volunteers, especially Katie, Judy, and Mary had everything ready and left little for us to do but identify the fungi. They had coffee made, cups and signage table out, and managed the potluck with our club members. We heartily appreciate their hospitality and willingness to host this annual event. Thank you Lummi Island Heritage Trust!

—Martha Dyck

More Lummi foray finds

The October 26, 2019, foray at Lummi Island featured clear skies and uninterrupted fun. We all met at the Heritage Trust Lodge to hear the rules of the day. Rebecca Rettmer of the Lummi Trust Foundation held forth. There would be three separate forays within the land trust, to three separate areas, with a separate collecting table for each.

The Curry was about a ten minute drive away. It was mostly fields with some woodland trails reemerging upon fields. The Otto consists of undulating woods all around the main lodge itself. The Baker was a stiff climb with many switchbacks through mixed woods. Fred Rhoades led the group on the Otto Preserve. I assisted on the Curry Preserve, while others took on the Baker. At the end of the day, the Otto clearly triumphed with 63 species. The Curry came in second with 39, and the Baker kicked in 25. A total of 127 species for the day.

Rebecca urged us to stay on the trails unless we spotted mushrooms off the trail. Mushroom gathering at all three preserves is prohibited year-round except for the one special day when the annual foray is held. It has over the years become a local favorite event. Following Rebecca, Fred made a speech urging us not to pick everything. Last year every mushroom seen made it to the tables, which made it hard to discern the different species. Thanks to this direction the species collected for identification were manageable.

I was accompanied by Martha Dyck on the Curry foray. We had barely descended from the auto when



Gymnopus erythropus at the Curry Preserve. Photo: Buck McAdoo

mushrooms appeared all around the parking lot. Martha pointed out that many were under maple, but not one of our indigenous maples. There was an attractive rusty-ochre *Cortinarius* I have seen many times but can never name because there is no updated Northwest key for this genus. Scattered through the lawn was also *Gymnopus erythropus*, which I hadn't seen since Albany, Georgia, in 1982. A very cool find. Martha then spotted a chunky brown mushroom with white gills under a hazelnut tree. This turned out to have angular spores under the microscope. The gills would eventually turn pinkish. The not-so-rare *Entoloma lividoalbum* emerged. We then ambled through a field where nothing was found until we entered the woods farther up.

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Leptonia badissima also at the Curry. Photo: Buck McAdoo



Laccaria amethysteo-occidentalis at the Otto Preserve. Photo: Buck McAdoo

Some of the most interesting finds here were wolf's milk, *Lycogala epidendrum*, a slime mold that oozes a sort of pink "toothpaste" if punctured. Another was the small brown *Leptonia badissima*, which I had never seen before. It had gray-brown gills and dark brown squamules on the cap surface. According to Largent's monograph, it has been found before in Pierce County, Snohomish County, and Kittitas County, so this could be a first for the islands. A little further on and I came across *Galerina marginata* curling off a log. This little brown fungus with the vestige of a ring on the stem is deadly. It has the same amanitin toxins as the Death Cap. A sobering find, but good to point out lest one forget that not all obscure looking mushrooms are edible.

All too soon it was noon and time to return to the lodge for the potluck. The Curry table (finds were organized separately for each preserve and collection) began to absorb more things of interest, including the blood red *Marasmius plicatulus*, a strikingly beautiful species that David Arora told me was a good edible. Also there was *Piptoporus betulinus*, a gray-capped polypore that fruits on birch. It has only recently been discovered in the Pacific Northwest, migrating here from back east. As I worked my way around the table I became aware of a woman who was staring me down. This was none other than Nancy Burnette who lives in Carmel, but summers on Lummi. In 1986 she found *Limacella roseicremea* on the island. To this day, this may well be the only *Limacella* ever found here. It was great to be reconnected.

Some of the most colorful mushrooms were found by others. Out on the table for the Baker preserve were the tiny purple jelly fungus, *Ascocoryne sarcoides*, the viscid and bright orange *Pholiota aurivella* with darker cap scales, and *Pluteus exilis*, the new name for the deer mushroom, which is edible and has a sort of parsnip flavor.

The table for the Otto Preserve featured the lovely blue-green *Stropharia caerulea*. It differs from the similar *Stropharia aeruginosa* by not having copious white velar material on the stipe. *Russula xerampelina* was also here, a large purple *Russula* with a shrimp-like odor when old: a fine edible when sauteed in butter with a bit of salt added at the end. The enigmatic *Tricholoma sulphureum* showed for the first time. It had a disgusting odor of coal tar. *Clitocybe nebularis*, the cloud mushroom with an odor of skunk cabbage also graced this table. *Helvella elastica*, *Ramaria vinosimaculans*, and *Laccaria amethysteo-*



Wolfs milk slime mold. Photo: Martha Dyck

occidentalis rounded off the other species of interest.

The potluck was superb. Mark Johnson and Richard Mollette, two of our main board members, also showed up to assist with fungi and feast. The sun stayed out all day, a happy circumstance not always noted for this particular foray. May there be many more.

—Buck McAdoo

Has anyone seen this mushroom?



Limacella roseicremea—a rare species found on Lummi Island by Nancy Burnette circa 1986.

Limacella may look like an *Amanita*, but it's not. According to David Arora in *Mushrooms Demystified*, "The viscid to slimy cap, presence of a veil, typically free gills, and absence of a volva typify this small, rather rare genus. The universal veil takes the form of a layer of slime and coats the cap and often the stem, and does not form a volva."

2019: Mushroom show goes wild, with record attendance

The NMA Wild Mushroom Show held this year on Sunday, October 20, reminded me of the city that never sleeps. By 3:00 p.m. our former attendance record of 738 attendees was broken with a grand total of 970 by 5:00. People shopped, tasted, ogled, gawked, gaped, conversed, queried, and listened to presentations. Hangers-on were reluctant to leave at show's end.

Club members arrived half an hour early for the Saturday delivery of wild finds and scores of fungi kept arriving with a bonanz a delivery by Stas and Carol Bronisz. By the time Fred Rhoades arrived at five,

boxes lined three walls of the Pavilion and were soon nomenclatured for the sorting process. Healthy snacks and coffee kept the IDers at assiduously at work.

Sunday morning started off with a bang at 8:25 a.m. with the Centerpiece Crew beginning the erection and creation of the centerpiece display. Tables, signs, and snack bar were quickly set up as the tray arrangers waited with anticipation for the first boxes of fungi to be mounted for display. Experienced hands taught neophytes the intricacies of stabilizing and presenting mushrooms for the best effect.

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Photos: Eduard Schwan



At the noon opening there were 50 visitors queued up eagerly looking forward to The Show and the line didn't cease until 4:30. OOOHS and AAAHS could be heard throughout the afternoon. At day's end approximately 45 new members had signed up and were looking forward to their first foray.

Fred Rhoades reported that the following had been on display: 326 specimens which included 222 gilled and 82 non-gilled Basidiomycota, 11 Ascomycota, 9 lichens, and 2 slime molds.

—Richard Mollette

The full show mushroom list can be found on the NorthwestMushroomers.org website under Species Lists.



Photos: Eduard Schwan



It takes a village to produce a perfect mushroom show. Photos: Migo Biciunas

NMA's 30th anniversary at Excelsior Campground

What more appropriate way for a mushroom club to celebrate its 30th birthday than to camp out among majestic cedar and fir, gather myriad species of mushrooms to identify and pore over, eat a delicious potluck, and enjoy firelight and music under the stars?

This is exactly what our club did Sept. 21—22 at Excelsior Group Campground in the Mt.-Baker National Forest, where 30 campers and at least another 15 non-camping members met on a beautiful sunny Saturday along the Nooksack River. People drifted in mid-day to set up tents and vehicles as we planned our forays for the afternoon. Vince stirred up enthusiasm with a haul of chanterelles she'd picked up around camp!

By one o'clock or so, we were ready to head out, and Fred Rhoades led a group walking the extensive woodlands around the campground itself, teaching neophytes and not-so neophytes. This area turned out to be highly productive. Others of us drove the .7 mile to nearby Nooksack Falls, where we also found plentiful specimens.

Fred and Christine Roberts found themselves swamped with ID'ing as the tables filled. Jim Fackler lent support to the ID'ers. Chanterelles, *Russula xerampelina*, and a few other edibles joined reams of gorgeous specimens to be studied.



Photo: Vince Biciunas



Photo: Vince Biciunas

At five o'clock the tables were set for our potluck, as always, delectable and varied. Afterwards we sat around a lovely fire (thank you for the wood, Anne Francis, Marti and Pete Juhle). Pam Borso and Michael Hoefler delighted the group with an impromptu guitar concert and singalong, and everyone retired to their vehicles or tents under a dark, but starlit sky.

Sunday morning my partner, Jim, dashed off to pick up muffins we'd ordered the previous day, from Glacier's Wake 'N Bakery. Campers gathered for coffee and muffins under an overcast sky. A fire on a cool morning certainly feels great.

—Martha Dyck



Photo: Martha Dyck

Mushroom of the Month

Scleroderma cepa Persoon

It was late afternoon on August 31 when I received the call. They had attempted to contact Fred Rhoades first, but he hadn't been home. A family of five down in Everett had been poisoned by a fungus. If they emailed me a photo of a specimen, could I identify it for them? The caller was Debra Schultz of the Poison Control Center.

It's always a tense moment to see what pops up on your screen. In this case it was an irregularly shaped leather brown sphere with tangled mycelium at the base. It was clearly a species of *Scleroderma*. These are earth balls that resemble truffles. I imagined they might have grated it over their pizzas.

I looked up *Scleroderma* poisoning symptoms. The victims could be suffering from nausea, stomach cramps, and a mixture of diarrhea and vomiting. Arora noted that "after expelling the species, the victim recovered quickly." I emailed them back. They were happy to have a conclusion. I heard no more from them.

This was not the first time I had a *Scleroderma* issue. They are common in the Pacific Northwest and therefore a liability when one is zoned in on truffles. Sclerodermas, in their prime, before their interior gleba turns into a mass of powdery spores, are almost as hard as a rock. If you cut one in half, you see a blackish interior with a few whitish "veins" and a relatively thick outer wall. Excepting the genera *Elaphomyces* and *Radiigera*, truffles have much thinner walls. The presence of purple-black gleba and the absence of a capillitium (thread-like fibers within the gleba) further designates a *Scleroderma*.

Habitat provides another hint, but is not fool-proof. Most Sclerodermas lie on the surface while truffles are found underground. However, *Scleroderma hypogaeum*, starts out below ground, and other members of the genus can be found half buried in soil.



Scleroderma cepa. Photo: Buck McAdoo

As Emil Guba points out, "It would seem best to avoid this genus. By some reports specimens can be eaten before there is any yellowing of the white interior in its earliest stage. Dark interiors imply danger." Guba goes on to state that *Scleroderma cepa* is poisonous cooked or raw causing a stinging prickly sensation over your entire body, rigid muscles, gastro-enteritis, profuse sweating, and nausea. Symptoms appear thirty minutes after ingestion.

By what I could tell by just viewing their photograph, the family in Everett had partaken of *Scleroderma cepa*, probably our most common *Scleroderma* in the Pacific Northwest. It has a roughly spherical fruiting body with a smooth wall at first. The outer wall becomes slightly scaly in age and can become coarsely cracked at the top, dehiscing to release the spores. Colors are dull brownish-ochre to leather brown. A cross section of the wall shows it turns purple when cut. It lacks a true stem, but basal rhizomorphs can form a bundle that looks like a conical pseudostipe (fake stem). The interior gleba (spore-bearing mass) starts out hard and white gradually becoming more yellowish en route to a hard purple-black. In age, this gleba disintegrates into a purple-gray powder that fades into a mouse-gray eventually. Under the microscope, the spores are sharply spiny with no reticulations between spines.

As for look-alikes, Sclerodermas could be confused with deer truffles in the genus *Elaphomyces*. Both

Elaphomyces granulatus and *Elaphomyces muricatus* have even thicker outer walls or peridiums than a *Scleroderma*, but they both lack the tangle of mycelium at their bases. Furthermore they are ascomycetes, not basidiomycetes like *Scleroderma*. The genus *Radiigera* also sports thicker peridiums, but their interior gleba has unbranched columellas, which also separates them from *Scleroderma*.

Scleroderma cepa, which means “hard skinned onion” in Latin may have a farinaceous odor (smells like bread) or no odor at all at first. As it ages the odor becomes disagreeable. The taste also becomes more bitter in age.

I found a big break of them once among shrubs along the driveway into Hovander Park near Ferndale. The literature claims they can be found in sandy soils among oaks, with introduced trees, and on embankments with bushes. According to Sims et al., they can be saprotrophs on soil and on rotting wood, or even symbiotic with certain trees. In California it is found with pine and eucalyptus. Although among the rarest *Sclerodermas* in Europe, *S. cepa* seems to have a wide temperate distribution. Dr. Watling has found them in Australia, W. Evans found them in Scotland, Cooke saw them in Germany, I. Alexander collected them in India, and E. Lorilla spotted them in

Mindanao. Not to be outdone, Guzman and Herrera found them in Chihuahua among oaks and cypress.

There are, of course, other *Sclerodermas*, equally poisonous, that differ in subtle ways. Other Northwest taxa include *Scleroderma citrinum*, *Scleroderma areolatum*, *Scleroderma bovista*, and *Scleroderma verrucosum*. *S. areolatum* differs by its thinner peridium (only 1 mm thick), larger spores at 10–18 microns in diameter, and a more areolate or cracked surface. *S. bovista* differs by its darker brown spores that are reticulate under the microscope, and tendency to become black spotted in old age. *S. verrucosum* has a thinner wall that becomes pinkish when cut, and a fibrous stem-like base. *Scleroderma citrinum* is a truly scaly species with a central wart in each scale and a tendency to turn pink when scratched. Some of these have been fatal to dogs.

Oddly enough, the Chinese authors of *Icons of Medicinal Fungi from China* have discovered some health benefits from *Scleroderma cepa*. The combination of leucine, tyrosine, ergosterol, sodium phosphate, urea, lipid, and calvacin can cure coughing, nosebleed, sore throat, and counteract swelling, internal heat, and fever. Theoretically you don't eat the entire fruiting body to obtain these results.



Scleroderma areolatum. Photo by Richard Morrison



Scleroderma bovista. Photo by Buck McAdoo



Elaphomyces granulatus. Photo by Buck McAdoo



Scleroderma citrinum. Photo by Richard Morrison

—Buck McAdoo

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One of nature's anomalies: Sterile mushrooms of *Stropharia ambigua*

Nature sometimes throws itself a curve ball by producing various anomalies. In this case, the anomaly showed up in the Lookout Mountain Preserve outside of Bellingham when I came across two fruit bodies of what at first glance appeared to be *Stropharia ambigua*. However, the exposed gills were pure white, not the purplish color they should be from the maturing spores of this species. Then, I thought these might be an *Amanita*, possibly *A. gemmata*. But, this was ruled out when the stipe base had no evidence of a volva and the gills were not free from the stipe. After photographing the two specimens, I collected them and took them home to get a spore print and examine them microscopically. After overnight incubation of a detached cap over a glass slide and white paper no spores were shed. And, when gills were examined under the microscope, there was no evidence of basidiospores or even of the spore bearing basidia. However, the gill edges were lined



Sterile mushrooms of Stropharia ambigua with white gills at the Lookout Mountain Preserve, near Bellingham, WA, October 2019. Photo by Richard Morrison

with numerous sterile cheilocystidia cells characteristic of *S. ambigua*. Further, the color and morphology of the mushrooms also matched this species, leading to the conclusion that these were sterile mushroom fruit bodies of *S. ambigua*.

In 2010, former NMA president Chuck Nafziger also found sterile *S. ambigua*, this time near Alger, WA, which Buck McAdoo identified and photographed. When I looked into the literature on *S. ambigua* the only mention I could find of sterile fruiting bodies was by Smith and Weber in their 1980 book, *The Mushroom Hunter's Field Guide*. In it they say, "Sterile specimens are known, and in these the gills are bright yellow." In contrast, the gills of the two local WA collections were pure white. NMA's science advisor, Dr. Fred Rhoades, says he has never come across sterile *S. ambigua* in his many years of mushrooming in the Pacific Northwest. And, Siegel and Schwarz— in their 2016 book on California redwood coast



(left) Sterile mushrooms of Stropharia ambigua with white gills found by Chuck Nafziger, near Alger, WA in 2010. Photo by Buck McAdoo

mushrooms, which typically gives thorough descriptions—say nothing about sterile variants in *S. ambigua*. This indicates that the sterile phenomenon is uncommon, if not rare.

S. ambigua can be one of our most photogenic mushrooms, with its light yellowish, shiny cap which is often adorned with pendulous white partial veil remnants, the whitish floccose stipe, and the contrasting darkening purplish gills from maturing spores.

The species is found throughout the Pacific Northwest south into northern California, and is often quite common, fruiting singly and in groups on leaf litter, duff, and woody substrates in forests and urban areas during spring, fall, and when wet weather and temperatures are favorable. Although *S. ambigua* is listed as edible, it has poor flavor. David Arora cites one mushroom authority as saying it “tastes like old leaves.” Not a very appealing culinary endorsement.

The mushroom was originally described as a new species by Charles Peck in 1898 and named *Hypoholoma ambiguum*. In 1914, S. M. Zeller moved it to the genus *Stropharia* as *S. ambigua*. The Latin word *ambigua* has a range of meanings, such as questionable, doubtful, uncertain, unclear, and vague, but Peck’s description reveals no rationale for the species name *ambiguum*. However, Smith and Weber suggest that the name refers to it being intermediate between the two genera, *Stropharia* and *Hypoholoma*. Arora assigns the species the common name “Questionable *Stropharia*,” Siegel and Schwarz call it the “Ambiguous *Stropharia*,” while Smith and Weber apply no common name. What is unquestionable is that *S. ambigua* is one of the most attractive and frequently encountered mushrooms in our region.

Finding anomalous variants in nature, like these sterile *S. ambigua* mushrooms, should not be a big



Typical fertile mushrooms of *Stropharia ambigua*. Note dark purplish gills from maturing spores and the purple-black spores cast on adjacent cap to the left. Photo by Fred Rhoades

surprise, but serve as a reminder that Mother Nature can produce a range of genetic variants within a species. Genetic variation and natural selection are the essential drivers of evolution. Some of the variant traits are beneficial and preserved in the species gene pool, while others are weeded out and discarded. Others might be “silenced” and not expressed, yet retained in the genome for the unknown future. One might take a moment to ponder whether there is an unperceived value to a species in producing sterile reproductive structures like these mushrooms, but, then, maybe it is simply a random mistake of nature.

—Richard Morrison

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Thanks from NMA speaker Alison Pouliot

The Australian photographer and author of *The Allure of Fungi* presented to NMA members in October 2019 with the fascinating theme, “Between Sex and Death.” She wrote to us afterward:

“Thank you all for your part in creating this wonderful opportunity for me to visit your mycological societies/universities and explore the Pacific Northwest forests and fungi.

“I have learnt so much about fungi and the very special ecologies of your forests, and hope I’ve also been able to impart a few insights. I will have many treasured memories especially from the Key Council meeting at Trout Lake, the Oregon Mycological Society camp, the Stimpson Reserve foray, but also the many other impressionable experiences.

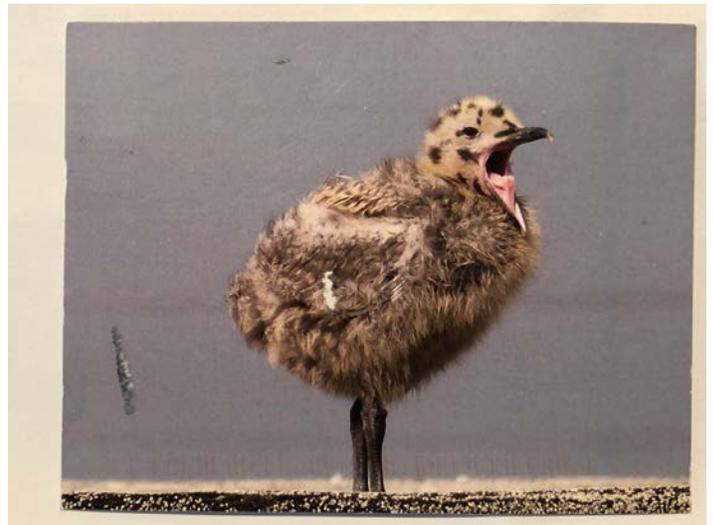
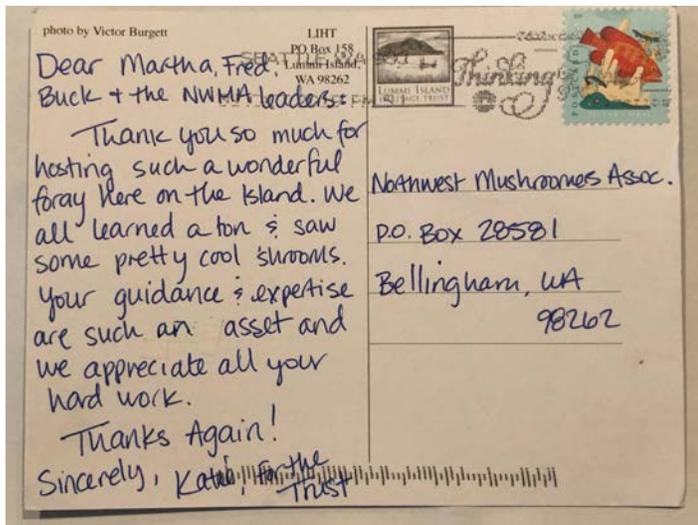
“The Stuntz Foundation is such a superb initiative in providing these opportunities to share knowledge and spread the mycelial message. Thank you to the Foundation for funding my visit, and to you all for creating the opportunity for me to give seminars; for taking me to the forests and out to dinner; for kindly hosting me in your homes and for generously sharing your knowledge and experience. I’m especially grateful to Steve for initiating this experience by

contacting my publisher and for his exceptional organisation throughout my visit.

“I’m now in Switzerland where the *Clitocybe nebularis* and *Infundibulicybe geotropa* are competing to see who will truly be Lord of the Rings! Please see attached impression [see photo above] of the former with a few additional fungal friends (dare I say ‘ring-ins’ . . .). In between forest jaunts I’ve got my head down trying to knock out the manuscript for my next (co-authored) book. If any of you are travelling to Australia or Switzerland at any stage, please let me know if you’re interested in heading to the forest. I will also have 40-plus fungus events (seminars, forays, workshops) running in the Australian 2020 autumn (April–June), and any of you would be more than welcome to attend if you happen to be heading Downunder. With best regards and again, my sincere thanks.”

To learn more, visit <https://alisonpouliot.com/publications>

And thanks to NMA volunteers from the Lummi Island Heritage Trust . . .



Hoot and howl **Tell us what you think!**

The hectic fall mushrooming season is behind us—meetings, the wild mushroom show, and the Lummi Island and Dilly forays. Now it's time to give the NMA Board your input on how to improve Northwest Mushroomers Association.

Please send email 360nmatreasurer@gmail.com with the subject line “Hoot and Howl”:

- what events you liked/did not enjoy this year
- what events we should add to or include in our club events
- how to improve the annual show (anything from arrangement of the tables to presentation topics and everything in between)
- books you would like to see for sale at the show
- suggestions for new events
- ideas for improving the newsletter
- ideas for improving the website
- comments on the nomination/election/voting process for board members
- what would you like to volunteer to do for the club
- and any other ideas you have for improving NMA

Please let us hear from you! During the dark days of winter we like to plan for the coming spring and fall mushrooming season. Your comments are essential. It's your chance to hoot and howl!

—NMA treasurer, Linda Magee



*Late season matsutake, Icicle Creek, Leavenworth area, October 31, 2019. “Found them frozen solid, but they still have that wonderful matsu smell!”
Photo and find by NMA member Steve Brownian*



2020 Calendar!

Get yours at mushroaming.com

Still in need of a new calendar? Daniel Winkler just posted his first-ever *Best of MushRoaming* calendar.

“I just ordered it so that I can salivate all year long.”

—NMA member
Nina Laden

Meet our new board

Nonprofits cannot thrive, or indeed exist, without a board. Many thanks, Brennan Brown, for your years of service as NMA president and to our continuing, as well as our newest, board members.

NMA 2020 board

President: Mark D. Johnson

Vice-President: Jack Waytz

Secretary: Deborah Gilbert

Treasurer: Linda Magee

Trustees: Buck McAdoo, Richard Mollette, Martha Dyck, Bradlee Frierott, Mariella Kerr, Russel Thompson, Brandon Sigurdson

Mushroom word foray by Eduard Schwan(Songs)

Find the words in the puzzle below. Answers, next page.

U A I E R I C O I D
T F M H K I N G S C A L E S
S A S R A L O B G I L L S U A T
M O R N R T O F U N G U S H R C A P I V
N C A O O U P A M O N O T R O P O I D S P E
Y P I C S H I O S H A G G Y M A N E H Y C E
M N L Y T T L A N N U L U S P O R E S B H G H I
L V M M A A E B A R B U S C U L A R B U T O I D W S
I A A M P C M W U C M O N O T R O P U F C S L Y R L
L O S A H Y P H Y P H A E D I B L E E R I S T O E E I Y
O N W Y M B C H A N T E R E L L E B U T T O N B R T M S
B M A T S S P O L Y P O R E A F R U I T I N G O O E E L
S H A G G Y M A R G I N X B L N V S L I M E M O L D M I
T S C R I N G N M R N A F I A B A Y O Y S T E R K V O M
A H F R H C R S M B
K U I C B A U C B S
P P N Z P U I U I T
V O L V A K S L O E
E R A M T L I A T R
I E T A H I N R I X
L S E T O O G U C S
B W X S G N S S P C
M R F U E S H S A H
C O U T N M X U R W
F A N A I A G L A A
R R G O C N V A S N
U B M Y C E L O I S
C H A N T E R E T O

